

Oct 5-8:01 AM

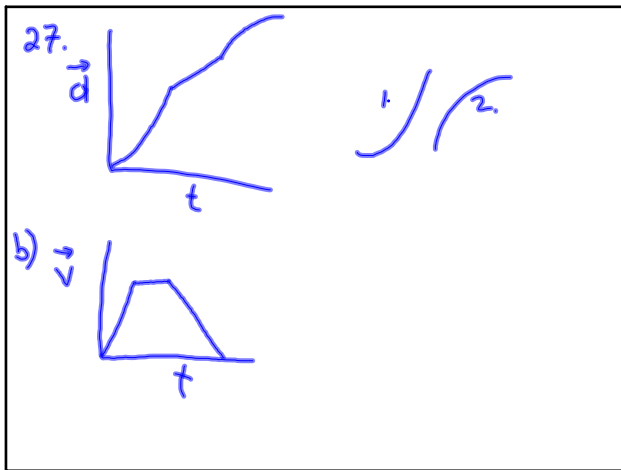
24. $V_i = 14 \text{ m/s}$
 $V_f = 0$
 $t = 5.0 \text{ s}$
 $a = ?$

$V_f = V_i + at$
 $\frac{V_f - V_i}{t} = a$
 $\frac{0 - 14 \text{ m/s}}{5.0 \text{ s}} = -2.8 \text{ m/s}^2$

25. $V_i = 0 \text{ m/s}$
 $V_f = 5.4 \text{ m/s}$
 $t = 12.0 \text{ s}$
 $a = ?$

$a = \frac{V_f - V_i}{t} = \frac{5.4 \text{ m/s} - 0 \text{ m/s}}{12.0 \text{ s}} = 0.45 \text{ m/s}^2$

Oct 5-9:07 AM



Oct 5-9:11 AM

11. $a = 0.30 \text{ m/s}^2$
 $t = 12.0 \text{ s}$
 $V_f = 6.4 \text{ m/s}$
 $V_i = ?$

$V_f = V_i + at$
 $V_f - at = V_i$
 $6.4 \text{ m/s} - (0.30)(12.0) = V_i$
 $6.4 \text{ m/s} - 3.6 \text{ m/s} = V_i$
 $2.8 \text{ m/s} = V_i$

12.

Oct 5-9:14 AM

13. $V_f = ?$
 $V_i = 0$
 $d = 50 \text{ m}$
 $t = 6.0 \text{ s}$
 $a = ?$

$d = V_i t + \frac{1}{2} a t^2$
 $V_f = V_i + at$
 $V_f^2 = V_i^2 + 2ad$
 $a = 2.8 \text{ m/s}^2$

$d = \left(\frac{V_f + V_i}{2} \right) t$
 $\frac{2d}{t} = (V_f + V_i)$
 $\frac{2d}{t} - V_i = V_f$
 $\frac{2(50)}{6} - 0 = V_f$
 $16.7 \text{ m/s} = V_f$

Oct 5-9:17 AM

16. $V_i = -28 \text{ m/s}$
 $t = 8.0 \text{ s}$
 $a = -3.2 \text{ m/s}^2$
 $d = ?$

$d = V_i t + \frac{1}{2} a t^2$
 $= (-28 \text{ m/s})(8.0 \text{ s}) + \frac{1}{2}(-3.2 \text{ m/s}^2)(8.0 \text{ s})^2$
 $= -224 \text{ m} - 102.4 \text{ m}$
 $= -326.4 \text{ m}$

23. 2.5 m/s

a) 1.3 m/s
 1.3 m/s
 3.7 m/s
 12 m/s

$1 \text{ cm} = 1 \text{ m}$

Oct 5-9:20 AM